

REMARKS

Claims 1-12 are pending in this application. By this Amendment, the specification and claims 1-12 are amended. Further, the drawing Figures 1-6 are replaced by the attached replacement drawing sheets. Reconsideration based on the above amendments and following remarks is respectfully requested.

Applicant's gratefully appreciate the courtesies extended to Applicants' representative by Examiner Thanh during the June 15 personal interview. The points discussed are incorporated into the following remarks.

Claims 1-12 were originally filed in PCT/FR00/01851 on June 30, 2000. An English-language translation of PCT/FR00/01851 and a translation of the annexes to the international preliminary examination report which included claims 1-12 was filed on December 18, 2001. Additionally, a Preliminary Amendment amending claims 4-11 was also filed on December 18, 2001. However, the Preliminary Amendment did not amend or cancel claim 12. Thus, claim 12 is still pending in this application.

Current claim 12 was submitted with the December 18 translation of the annexes to the international preliminary examination report. Thus, Applicants respectfully request the Examiner to consider pending claim 12 in the prosecution of this application.

I. The Claim for Priority

The Office Action indicates that it is unclear whether or not Applicants intend to claim foreign priority since the Oath/Declaration does not specifically claim the foreign priority of the French patent.

Applicants hereby affirm their claim for a foreign priority based on French Patent Application No. 99 09252 filed July 16, 1999. The claim for foreign priority based on the FR 99 09252 is set forth in the December 18, 2001 Application Data Sheet, as required by 37 C.F.R. 1.63.

Applicants respectfully request the Examiner to acknowledge Applicants' claim for foreign priority under 35 U.S.C. §119.

II. The Information Disclosure Statement

The Office Action indicates that the Information Disclosure Statement filed December 18, 2001, fails to comply with the provisions of 37 C.F.R. §1.97, 1.98 and MPEP §609 because there is no translation of the foreign language documents. Thus, the Office Action indicates that the references have been placed in the application file, but the information referred to therein has not been considered as to the merits.

MPEP §609, Section III, A(3) states the following:

Where the information listed is not in the English-language, but was cited in a search report or other Action by a foreign Patent Office and a counterpart foreign application, the requirement for a concise explanation of relevance can be satisfied by submitting an English-language version of the search report or Action which indicates the degree of relevance found by the foreign Patent Office. This may be an explanation of which portion of the reference is particularly relevant, to which claims it applies, or merely in "X", "Y", or "A" indicated on a search report.

The Information Disclosure Statement with form PTO-1449 filed December 18, 2001, indicates that the references were cited in a counterpart foreign application. Further, the Information Disclosure Statement indicates that an English-language version of the foreign search report was attached for the Examiner's information. Thus, Applicants respectfully submit that the requirements for a concise explanation of relevance for non-English-language information have been satisfied.

The Examiner is requested to initial and return to the undersigned a copy of the form PTO-1449 indicating that all references have been considered. For the convenience of the Examiner, a copy of that form is attached. Applicants respectfully request that the Examiner consider and return the initialed/signed form PTO-1449 with the next Office Action.

III. The Specification Satisfies All Formal Requirements

The Office Action rejects to the specification because of informalities. The specification is amended to obviate the objection. Withdrawal of the objections to the specification is respectfully requested.

IV. The Drawings Satisfy All Formal Requirements

The Office Action objects to the drawings. Specifically, the Office Action asserts that the drawings must show every feature of the invention specified in the claims. In particular, the Office Action asserts that the surfaces of revolution, in claim 2, and contacts in surfaces are flat surfaces, in claim 3, must be shown or the features canceled from the claims. These rejections are respectfully traversed.

"Revolution" is defined as the combination of a frustoconical part and a cylindrical part. See page 18, lines 3-7, and Figs. 1 and 3-4. For example, Figs. 1 and 2 disclose a core 3 and a cylindrical support 4 with revolution geometry. Since the core 3 nests in a cylindrical support 4, contact surfaces include an interior lateral face 20 and an exterior lateral face 40, or an exterior lateral face 30 and an interior lateral face 40'. The exterior lateral face 40 is an outer part of a lateral surface of the cylindrical support 4, the interior lateral face 40' is an interior part of the lateral surface of the cylindrical support 4, and the exterior lateral face 30 is a lateral surface of core 3. Thus, the features of surfaces of revolution are described in the specification and shown in the figures. However, claim 2 is amended for purposes of clarification.

Fig. 5 shows quarters/parts 5, 6 each including flat faces 50, 60. When the quarters/parts 5,6 are assembled, the flat faces 50, 60 contact each other. Thus, the flat faces 50, 60 are plane contact surfaces. See page 6, lines 10-14, and page 18, line 20-page 19, line 7. Therefore, the feature that the contacting surfaces are planar surfaces is described in

the specification and shown in the figures. However, claim 3 is amended for purposes of clarification.

Figs. 1-4 and 6 are corrected as indicated in attached replacement drawing sheets to correct additional informalities. Withdrawal of the objection to the drawings is respectfully requested.

V. The Claims Satisfy All Formal Requirements

The Office Action objects to claims 1-11 because of informalities. Specifically, the Office Action asserts that there are reference numerals in the claims which are not disclosed in the specification. Claims 1-11 are amended to obviate the objection and correct additional informalities. Withdrawal of the objection to claims 1-11 is respectfully requested.

VI. The Claims Satisfy the Requirements of 35 U.S.C. §112, Second Paragraph

The Office Action rejects claims 1-11 under 35 U.S.C. §112, second paragraph, as indefinite. Claim 1 is amended to obviate the rejection. Withdrawal of the rejection under 35 U.S.C. §112, second paragraph, is respectfully requested.

The application discloses a needleless syringe with several injection channels that are created due to the shape of the injector. The injector is made by assembling (nesting) at least two elements at a downstream end of the syringe. Each element has an upstream face and a downstream face which are connected by a lateral surface. In the assembly, the elements are in contact by all or part of their lateral surfaces which define contact surfaces between the adjacent elements. The lateral surfaces contact each other except in the regions of grooves that are formed in the lateral surfaces.

Certain portions of the lateral surfaces forming contact surfaces have at least one groove extending between an upstream face and a downstream face. When the core 3, cylindrical support 4, quarter size part 5 and quarter/part 6 are isolated, the groove formed in the lateral surface is an open channel. However, when these elements are assembled, each

groove is closed to form an injection channel. See page 4, line 9-page 6, line 2, page 18, lines 1-18, and Figs. 1-6.

VII. Claims Define Allowable Subject Matter

The Office Action rejects claims 1-4, 7 and 9 under 35 U.S.C. §102(b) as unpatentable over U.S. Patent No. 5,026,343 to Holzer; and claims 1-4 and 7 under 35 U.S.C. §102(b) as unpatentable over U.S. Patent No. 3,788,315 to Laurens. The rejections are respectfully traversed.

Neither Holzer nor Laurens disclose an injector including an assembly of at least two elements, the lateral surfaces of said elements in the assembly being wholly or partly in contact with each other to the define contacting surfaces; and at least one of the lateral surfaces having at least one groove which constitutes an injection nozzle in the assembly of said elements, the injection nozzle located between the contacting surfaces, as recited in claims 1 and 12.

Instead, Holzer discloses, in Figs. 1 and 2, an ampoule which includes only a front plate 1 and a membrane 3. The front plate is provided with a nozzle 2 and the main membrane is flexible, holding medication at 4 in the form of a liquid. See col. 2, lines 39-44. Thus, Holzer discloses a needleless syringe whose injector has a channel passing through the front plate of the injector.

Further, Holzer discloses, in Fig. 3, an additional form of the device including a front plate 1 and a large membrane 6 forming a roll bellows. The front plate 1 is essentially larger in diameter than the bellows, the latter being bound at the edge 7 of the front plate by means of welding or glue. See col. 2, lines 45-55. Further, the front plate 1 is provided with a plurality of nozzles 2. Thus, Holzer discloses a needleless syringe whose injector has several channels passing through the front plate of the injector.

Laurens discloses, in Fig. 3, a transjector 1 including a housing 3 closed by a cover member 5. At an open end of the housing 3, the housing 3 is closed by a cover member 5 which is secured by means of a threaded engagement with the housing 3. The combination of the housing 3 and the cover member 5 form an elongated chamber 7 within the transjector 1. A plurality of openings extend through the cover member 5 communicating between the chamber 7 and the exterior of the device. See col. 3, lines 37-48. Thus, Laurens discloses a needleless syringe whose injector 5 is screwed onto the body of the syringe, and the injector has several channels passing through the cover member of the injector.

Holzer and Laurens do not disclose the nesting of at least two elements and that the injection channels are in the form of grooves located in the lateral surfaces of the elements, wherein the grooves close when the elements are assembled (or nested).

Although Holzer and Laurens disclose injection channels, the invention recited in the claims discloses grooves on the lateral surfaces of elements. In the invention recited in the claims, channels are only formed when the elements are assembled so that the grooves close in the longitudinal direction to form the channels. Thus, Holzer and Laurens do not disclose the production of channels as in the invention recited in the claims. Instead, Holzer and Laurens disclose grooves passing through on the outer lateral surface of the element mounted on the syringe.

During the personal interview, the Examiner argued that "at least one of the lateral surfaces have at least one groove which constitutes the injection nozzle in the assembly of said element; and the injection nozzle located between the lateral surfaces" is not disclosed in the applied art. However, the Examiner requested that claims 2-11 be amended to provide proper antecedent basis for all claimed features. In consideration of the Examiner's comments during the personal interview, Applicants have amended claims 1-12 to further clarify the invention.

For at least these reasons, it is respectfully submitted that claims 1 and 12 are distinguishable over the applied art. Claims 1-11, which depend from claim 1, are likewise distinguishable over the applied art for at least the reasons discussed as well as for the additional features they recite. Withdrawal of the rejection under 35 U.S.C. §102(b) is respectfully requested.

VIII. The Claims Define Patentable Subject Matter

The Office Action rejects claims 1-3 under obviousness-type double patenting as unpatentable over claims 1-7 of U.S. Patent No. 6,623,446 to Navelier et al. A Terminal Disclaimer is filed herewith to obviate the double patenting rejection. Withdrawal of the double patenting rejection is respectfully requested.

IX. Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-12 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact

Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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WPB:HNH/kzb

Attachments:

Copy of the Form PTO-1449 (December 18, 2001)
Terminal Disclaimer

Date: June 21, 2004

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